UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
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ATLANTA, GEORGIA 30303-8960

JAN 16 2018

Ms. Anita E. Masters
NEPA Compliance Specialist
Tennessee Valley Authority
1101 Market Street, BR 2
Chattanooga, Tennessee 37402

Re: Draft Environmental Impact Statement (DEIS) for Cumberland Fossil Plant Coal Combustion Residual Management Operations, Stewart County, Tennessee; CEQ No: 20170227; ERP Number TVA-E07015-TN

Dear Ms. Masters:

The U.S. Environmental Protection Agency has reviewed the referenced document in accordance with Section 309 of the Clean Air Act and Section 102(2)(C) of the National Environmental Policy Act (NEPA). The purpose of this DEIS is to address the continued disposal of Coal Combustion Residuals (CCR) from the Tennessee Valley Authority's (TVA) Cumberland Fossil Plant (CUF). The plant is located in Stewart County, Tennessee, approximately 22 miles southwest of Clarksville. The plant is on a large, approximately 2,388-acre tract of land located at the confluence of Wells Creek and the south bank of the Cumberland River near Cumberland City. The CUF generates approximately 2,470 megawatts power supply to the north-central portion of TVA's service area. TVA plans to continue operating the CUF in the future and produces approximately 1 million tons of CCR each year. TVA has historically managed storage of CCR materials generated at CUF in a combination of onsite dry stacks, wet stacks, and impoundments.

The EPA has reviewed the DEIS and the three alternatives for disposal of CCR generated at the CUF. In addition to a No Action alternative, TVA has considered three action alternatives (i.e. Alternatives B, C, and D as described below) that identified several CCR management projects. These projects include, the construction of a bottom ash dewatering facility, closure of the ash impoundments and options for long-term disposal of future CCR (both construction of a landfill on CUF property and offsite transport of CCR to an existing permitted landfill). According to the TVA's analysis, all three of these action alternatives would meet the purpose and need of TVA's project.

The EPA understands that TVA's preferred alternatives for existing and future CCR are either Alternative B or C, or a combination thereof. Both Alternatives B and C include a Bottom Ash Dewatering Facility, Ash Impoundment Closure (Closure-in-Place, Closure-by-Removal, or a combination of the two closure methods), and Construction of an Onsite Landfill for future CCR produced at the CUF. The Closure-by-Removal CCR removed from the impoundments would be transported to an offsite landfill (Alternative B), or an existing onsite landfill (Alternative C). Alternative D includes a Bottom Ash Dewatering Facility, Ash Impoundment Closure (Closure-in-Place, Closure-by-Removal, or a combination of the two closure methods), and Offsite Landfill for Future

CCR Produced at the CUF. Impacts associated with Alternatives B and C primarily include temporary short-term impacts during construction and minor long-term impacts to aquatic resources, loss of bat habitat, and impacts to 0.5 acres of wetlands associated with construction of an onsite landfill. However, TVA has concluded that the construction and operation of an onsite landfill is preferred over the use of an existing offsite landfill to avoid impacts associated with offsite transport of CCR. Alternative D would potentially result in long-term air emissions, noise emissions, safety risks, and disruptions to the public that would be associated with the offsite transport of CCR along public roadways.

TVA requested that commenters identify their preferred alternative. The EPA has rated Alternative C as a Lack of Objections, or "LO". The EPA has rated Alternatives B and D described in this DEIS as "EC-2", or Environmental Concerns with additional information being requested for the Final Environmental Impact Statement (FEIS). Based on our review of the DEIS and as indicated by the ratings, Alternative C appears to be the environmentally preferred alternative. The EPA has identified the relevant environmental concerns associated with these proposed alternatives that could require changes to the TVA's alternatives. We have enclosed detailed technical comments and recommendations for your consideration (See enclosure). In general, we also recommend that the TVA should adhere to the federal and state permitting requirements as it relates to water quality as well as best management practices (BMP's) that have been identified in the DEIS.

The EPA appreciates the opportunity to review the Cumberland Fossil Plant Landfill DEIS. If you wish to discuss this matter further, please contact Mr. Larry O. Gissentanna, Project Manager in the NEPA Program Office at (404) 562-8248 or by e-mail at gissentanna.larry@epa.gov.

Sincerely,

Carol J. Monell

Carol J. Monell
Acting Director
Resource Conservation and Restoration Division

Enclosure

Enclosure
EPA's Detailed Comments
Tennessee Valley Authority's (TVA's) Draft Environmental Impact Statement
Cumberland Fossil Plant Coal Combustion Residual (CCR) Management Operations
Stewart County, Tennessee
CEQ No.: 20170227

TVA's Preferred Alternative(s): On page 52 of the Draft Environmental Impact Statement (DEIS), TVA identifies its preferred alternatives for existing CCR as either Alternative B or C, or a combination thereof. Both Alternatives B and C include the Construction and Operation of a Bottom Ash Dewatering Facility, Closure of the Impoundments (either Closure-in-Place, Closure-by-Removal or a combination of the two closure methods), and Construction of an Onsite Landfill for future CCR produced at the CUF. Closure-in-Place would require the removal of CCR from portions of the Main Ash Impoundment and Stilling Impoundment that would be repurposed as part of the Bottom Ash Dewatering Facility. Options for disposal of CCR from these areas would include an existing onsite landfill or transportation to an existing offsite landfill. For closure-by-Removal, CCR removed from the impoundments would be transported to an offsite landfill (Alternative B) or an existing onsite landfill (Alternative C). The TVA indicated in the DEIS that it would appreciate receiving comments on which closure methodology should be employed between Alternatives B and C.

In addition to state and federal water and waste regulations, TVA's CCR disposal areas at the CUF, including the impoundments, are subject to the administrative order entered by Tennessee Department of Environmental Conservation (TDEC). As stated in the DEIS, the execution of the requirements of the TDEC order will necessarily drive the decision on closure methodology as well as further potential corrective measures related to the ash disposal areas, including the impoundments. Both Alternatives B and C would result in minor impacts to the natural environment primarily from the construction of the onsite landfill. TVA has indicated in the DEIS that these potential impacts are not significant. In addition, Alternatives B and C include the construction of an onsite landfill which would avoid offsite transport of future CCR. Alternative D is not identified by TVA as one of its preferred alternatives.

Recommendation – The EPA recommends that TVA further identify the specific options (i.e., Closure-in-Place versus Closure-by-Removal) for its preferred alternative in the Final Environmental Impact Statement (FEIS) and provide the relevant environmental impacts for the components of either Alternative B or C that are ultimately selected. The EPA concurs with the TVA's assessment that under Alternative D, the air emissions, noise emissions, safety risks and disruptions to the public that would be associated with the offsite transport of CCR along public roadways is the least environmentally preferred option.

Groundwater/Surface Waters: On page 82 of the DEIS, it states that natural groundwater quality would eventually be reestablished. Statements in this section would seem to suggest that the groundwater has been impacted, but not yet at actionable levels. This would seem to preclude a scenario where the CCR material is closed-in-place as some adverse impact to groundwater may have already occurred. Under Section 3.6.2.2, Groundwater Use, the map provided in the DEIS shows that there are no domestic water wells within one mile of the subject site. It appears the wells are either up-gradient or in another hydrologic zone. Therefore, there are no known local users of groundwater.

Based upon the review of the TVA's Groundwater Assessment Monitoring Report of July 2015, the EPA understands there may have been past contamination issues related to Wells Creek (which also leads to the Cumberland River) and associated with the unlined CCR impoundment and the contact of the waste with groundwater.

Recommendation: To eliminate any potential future issues of groundwater contamination, the EPA recommends that the existing CCR should be removed, stabilized and placed in a dry landfill under Alternative C consistent with the CCR rules. Furthermore, we recommend that any remaining contamination of groundwater from CCR storage in the existing impoundment should be identified, monitored and remediated in accordance with applicable TDEC requirements.

Air Quality: Emissions associated with the proposed project would have a minor impact on localized air quality. However, Closure-by-Removal emissions would be greater than Closure-in-Place. Alternative D would have the greatest emissions due to the numerous truckloads required for off-site disposal. The DEIS indicates that Alternative C emission impacts are similar to Alternative B.

Recommendation: The EPA recommends that the TVA define a timeframe for "temporary impacts", as it relates to fugitive dusts and what mitigation measures are included in BMPs for impacts to the local workers and the environment.

Wastes: The DEIS indicates that there will be a loss of capacity from the Fly Ash Stack under the Closure-in-Place option.

Recommendation: The EPA recommends that TVA provide additional information on the minor impact associated with the "loss of capacity" from the Fly Ash stack under the Closure-in-Place option. Furthermore, please clarify in the FEIS when the TVA expects to reach capacity and seek to transport Fly Ash off-site under a Closure-by-Removal option.

Beneficial Uses: Beneficial reuse is considered by TVA as part of all ash management activities. The DEIS states that TVA would identify opportunities for beneficial reuse of CCR. The main beneficial uses of CCR are in the manufacture of wallboard, roofing, cement, concrete and other products.

Recommendation: The EPA recommends that TVA continue to identify opportunities for beneficial use of CCR ash management. As noted in the DEIS, expanding the list beneficial uses of CCR extends the life expectancy of onsite and offsite disposal landfills.